

Remarks/Arguments

Claims 1-37 are pending in the application. Claims 11 and 28 were previously canceled. Claims 1, 6, 13, 15 and 24 are currently amended.

Claims 1-37 were rejected under 35 U.S.C. 101 because the claimed invention is allegedly directed to non-statutory subject matter. This rejection is respectfully traversed for the following reasons.

Claims 1-10 and 12-23 are directed toward a "useful process" within the meaning of 35 U.S.C. 101. A process that qualifies as statutory subject matter under section 101 is one that requires the measurements of physical objects or physical activities to be transformed into computer data for subsequent data processing by a computer. See, e.g., *Arrhythmia Research Technology, Inc. v. Corazonix Corporation*, 958 F.2d 1053 (Fed. Cir. 1992) (measuring electrical signals associated with a human heart and calculating resultant computer data from the measured electrical signals).

Here, claim 1 recites the recording of data (e.g., planting information, growing information, harvesting information, or chemical application information) incidental to or accompanying an agricultural activity (e.g., at least one of pre-planting, planting, chemical application, and harvesting of the particular crop). Claim 15 recites the recording of data (e.g., planting information) incidental to or accompanying an agricultural activity (e.g., at least one of pre-planting, planting, and chemical application).

Further, claim 1 recites "electronically recording a storage identifier" or data "associated with one or more corresponding storage volumes for holding the segregated particular crop for input to the grower data processing system." Similarly, claim 15 calls for "electronically recording the container identifier" or data "of the one or more containers for input to the grower data processing system." The recording of a storage identifier or container identifier represents the measurement of a physical object or activity transformed into computer data, which further qualifies claims 1 and 15 as statutory subject matter under section 101.

For the foregoing reasons, Applicants respectfully request the withdrawal of the section 101 rejection of claims 1 and 15, and all claims that depend upon either claim 1 or claim 15.

Claims 24-27 and 29-37 are directed toward a system or "machine" within the

meaning of 35 U.S.C. 101. A data processing machine that produces a transformation of data is a useful, concrete, tangible result represents patentable subject matter under 35 U.S.C. 101. *State Street Bank & Trust Co v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373 (Fed. Cir. 1998) (a computer program calculating a share price for recording and reporting purposes represents a useful, concrete and tangible result). Here, the system of claim 24 produces a data profile for a particular crop associated with storage volumes (e.g., storage containers). Accordingly, buyers and sellers of the particular crop in a supply chain may have access to the "characteristics" of a particular crop in the data profile, for example.

For the foregoing reasons, Applicants respectfully request the withdrawal of the section 101 rejection of claims 24, and claims 25-37 which depend upon claim 24.

Claims 1-10, 12-27, and 29-37 were rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-25 of U.S. Pat. No. 6,671,698. Accordingly, Applicants have enclosed a terminal disclaimer and hereby authorize the Commissioner or Director to charge the applicable fee of \$ 130 under 37 C.F.R. 1.20(d).

Claims 1-37 were rejected under 35 U.S.C. 103(a) as being unpatentable over the combination of the following two references: (1) Ollis et al., "First results in vision-based crop line tracking" (hereinafter "Ollis") and (2) Saich et al., "Interpreting ERS SAR signatures of agricultural crops in Flevoland, 1993-1996. (hereinafter "Saich") This rejection is respectfully traversed for the following reasons.

Ollis discloses "a vision-based crop line tracker which has been used to guide a harvesting machine at speeds of up to 4.5 miles an hour (2.0 m/sec) in an alfalfa field." Ollis at p. 951.

Saich discloses gathering radar propagation data (e.g., a group of signatures) that is indicative of crop classifications over multiple years. Saich at p. 2342. The procedures in Saich are useful for testing crop classification algorithms that use radar propagation data collected by satellites. Saich at p. 2342. Saich teaches that taking satellite radar images during the summer months helps to distinguish broad-leaved crops (e.g., potatoes and sugar beets) from the cereals (e.g., wheat and barley). Saich at p. 2344.

There is no motivation or suggestion to combine Ollis and Saich to meet the claimed invention of claim 1, 15 or 24. Each cited reference is fully functional on its

own and would require additional features that are not present in either Ollis or Saich to meet the claimed invention in claims 1, 15, and 24. Even if Ollis and Saich could be combined, the alleged combination does not meet claim 1, 15 or 24.

The alleged combination of Ollis and Saich would arguably be (1) a vision-guided harvester that tracks a transition between harvested and unharvested crop; and (2) satellite radar imagery to classify crop identity from year to year in a consistent manner by taking images at a particular time. In Ollis, the vehicle guidance system is used for guidance of a harvester, rather than collecting the "characteristics" about a particular crop during an agricultural activity (e.g., planting or harvesting) to form a data profile for later reference. In Saich, taking satellite radar images during the summer months helps to distinguish broad-leaved crops (e.g., potatoes and sugar beets) from the cereals (e.g., wheat and barley). Saich at p. 2344. None of claims 1, 15, and 24 call for a vision-guided harvester, or satellite radar images for distinguishing broad-leaved crops from cereal crops.

In contrast to the alleged combination, claims 1 and 15 each recite collection of data to form a data profile about the characteristics of a particular crop via a grower data processing system associated with an agricultural machine, as opposed to a satellite with radar imaging capability of the alleged combination of Ollis and Saich. The vehicle guidance system of Ollis fails to make up for Saich's deficiency with respect to the data processing activities of Ollis' vehicular guidance system.

Further, claim 1 and claim 24 recite the data profile comprises "the recorded planting information and the harvesting information associated with one another based on a planting location generally matching a harvesting location for a specific growing season of a particular crop." The location data processing verifies that the data profile accurately contains data associated with a particular crop for a growing season, as opposed to the planting information for a first crop and the harvesting information for a second crop. Nothing in Ollis or Saich, alone or in combination, teaches or suggests recording "planting information and the harvesting information associated with one another based on a planting location generally matching a harvesting location for a specific growing season of a particular crop."

Claim 15 is a method claim that is similar to claim 1, but focuses on collection and recording of planting information for the data profile. Claim 15 recites that the recording of planting information is "incidental to or accompanying at least one of pre-planting, planting, and chemical application of the particular crop."

For the foregoing reasons, the Applicants respectfully request a withdrawal of the rejection of claims 1, 15, and 24 under 35 U.S.C. 103(a) and allowance of claims 1, 15, and 24. Further, because claims 2-10 and 12-14 depend upon claim 1, claims 2-10 and 12-14 are patentable for at least similar reasons to claim 1. Because claims 16-23 depend upon claim 15, claims 16-23 are patentable for at least similar reasons to claim 15. Because claims 25-27 and 29-37 depend upon claim 24, claims 25-27 and 29-37 are patentable for at least similar reasons to claim 15.

Claims 6 and 13 are amended to correct minor informalities and not to overcome any cited prior art.

Therefore, all pending claims are believed to be in suitable condition for allowance and such allowance is respectfully solicited.

Any fees or charges due as a result of filing of the present paper may be charged against Deposit Account 04-0525, including the applicable fee under 37 C.F.R. 1.20(d) of \$ 130 for submission of the enclosed terminal disclaimer

Respectfully submitted,


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